

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-002117**Date Inspected:** 25-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**Quality Control Contact:** Don Walton**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:****Bridge No:** 34-0006**Component:** OBG Components**Bid Item:****Lot No:** B- 278**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) S. Manjunath. Math was present during the times noted above for observations relative to the work being performed.

Inspection for Surface Preparation and/or Coating Application.

OBG Internal Surface Inspection Request No. 3195

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the OBG Internal Surface for Segment 9CE and Segment 9CW for Adhesion Test at Painting workshop no.1 and OBG assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: Segment 9CE Inspection was cancelled by ZPMC QC thus not inspected, Segment 9CW external side Adhesion test was accepted by ABF QA's and Adhesion result were recorded as 4.97 Mpa with 85% Cohesion Failure, 6.48 Mpa with 95% Cohesion Failure, 5.65 Mpa with 90% Cohesion Failure, 7.38 Mpa with 85% Cohesion Failure and 7.15 Mpa with 100% Cohesion Failure and Caltrans QA concurred with the ABF QA's Inspection. Please refer the pictures attached below for more comprehensive detail.

Splices Inspection Request No. 3196

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the Splices X37D(120 Pieces) and X37F(107 Pieces) all together (227 Pieces) for Surface Preparation before primer

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application at blasting workshop no.2 and OBG assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: 116 Pieces were Rejected and 111 Pieces were Accepted by ABF QA's reason for rejections was grinding and blasting which was recommended at edges, Three Locations surface profile performed and observed results between 72 to 80 microns and Caltrans QA concurred with the ABF QA's Inspection. Please refer the pictures attached below for more comprehensive detail.

OBG Cross Beam Terminal Bottom Plate External Surface Inspection Request No. 3197

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the OBG Cross Beam Terminal Bottom Plate External Surface for Surface Preparation, Dry Film Thickness (DFT) measurement, Residual Chloride Test and MEK Test at painting workshop no.1 and OBG assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: Rejected by ABF QA's reason for rejections was minor low DFT areas and Failed MEK test grade 3 and Caltrans QA concurred with the ABF QA's Inspection.

OBG Internal Ceiling and Internal Floor Beams Inspection Request No. 3198

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the OBG Internal Ceiling and OBG internal floor beams for Segment 9CW for Dry Film Thickness (DFT) measurement at painting workshop no.1 and OBG assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: The notification for Inspection was cancelled by ZPMC thus ABF QA's and Caltrans QA did not performed the Inspection.

Splices Inspection Request No. 3199

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the Splices X37D and X37F all together 116 Pieces for Surface Preparation before primer application at blasting workshop no.2 and OBG assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: 116 Pieces were accepted by ABF QA's and Caltrans QA concurred with the ABF QA's Inspection.

OBG Internal Diaphragm Bottom Splice X3P faying surface Inspection Request No. 3200

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the OBG Internal Diaphragm Bottom Splice X3P faying surface for Segment 11BW at Panel Point (PP) 98, PP 99 and PP 100 for Dry Film Thickness (DFT) measurement at painting workshop no.1 and OBG assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: Accepted by ABF QA's three surface profile test conducted and observed results between

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72 to 82 micros and Caltrans QA concurred with the ABF QA's Inspection.

OBG Internal Ceiling and Internal Floor Beams Inspection Request No. 3201

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the OBG Internal Ceiling and OBG internal floor beams for Segment 9CW for Dry Film Thickness (DFT) measurement at painting workshop no.1 and OBG assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: Rejected by ABF QA's reason been during Inspection Mud Cracking defect, High/Low DFT and over blast areas found which does not meet the approved procedure and Caltrans QA did not performed the Inspection.

OBG Internal Diaphragm Bottom Splice X3P faying surface Inspection Request No. 3202

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the OBG Internal Diaphragm Bottom Splice X3P faying surface for Segment 11AW at Panel Point (PP) 95, PP 96 and PP 97 for the Surface Preparation before applying the Primer coat at OBG Trial Assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: Accepted by ABF QA's three surface profile test conducted and observed results between 74 to 79 micros and Caltrans QA concurred with the ABF QA's Inspection.

OBG Internal Entire Floor Inspection Request No. 3203

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the OBG Internal Entire floor for Segment 9DE for the Surface Preparation before applying the Primer coat and Residual Chloride test at OBG Trial Assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: Accepted three location salt tests performed with values recorded as 10, 10 and 20 microns/cm and Rejected as Grinding and Magnetic Particle Test, further weld repair and re-blasting required which was recommended by ABF QA's and Caltrans QA concurred with the ABF QA's Inspection.

Splices Inspection Request No. 3204

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the Splices, Break water and OBG Cross Beam Terminal Bottom Plate for Surface Preparation before primer application at blasting workshop no.1 and OBG assembly yard at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: Splices and Breakwater accepted by ABF QA's and OBG Cross Beam terminal rejected as not blasted to SSPC 10 requirement and Caltrans QA concurred with the ABF QA's Inspection.

Splices Inspection Request No. T 322

A joint three party inspection was performed by ZPMC QC's, ABF QA's and Caltrans QA for the Struts, Strut

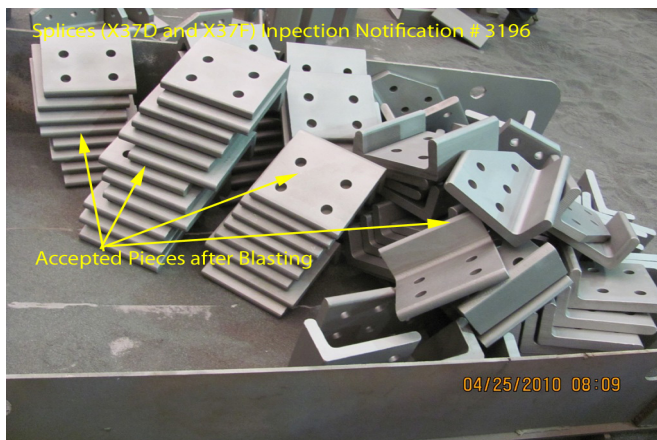
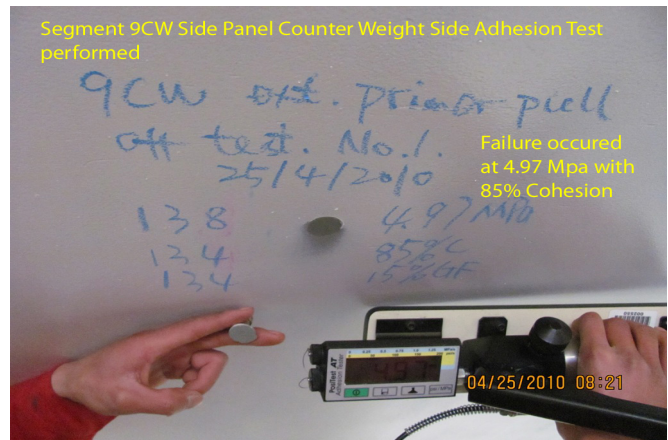
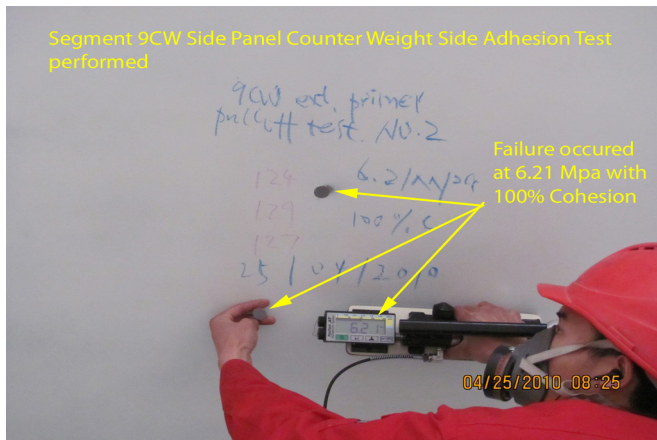
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Splices and Strut L Splices all together 362 Pieces for Degreasing and Cleaning at west gate of the blasting at Shanghai Zhenhua Port Machinery Co., Ltd., (ZPMC).

Inspection Conclusions: Accepted by ABF QA's and Caltrans QA concurred with the ABF QA's Inspection.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No Relevant Conversation

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer